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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/990,087

DATE: 11/28/2001

TIME: 11:32:46

Input Set : A:\87-00.app

Output Set: N:\CRF3\11212001\I990087.raw

ENTERED

3 <110> APPLICANT: Sligar, Steven
 4 Bayburt, Timothy
 6 <120> TITLE OF INVENTION: Membrane Scaffold Proteins
 8 <130> FILE REFERENCE: 87-00
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/990,087
 11 <141> CURRENT FILING DATE: 2001-11-20
 13 <150> PRIOR APPLICATION NUMBER: US 60/252,233
 14 <151> PRIOR FILING DATE: 2000-11-20
 16 <160> NUMBER OF SEQ ID NOS: 46
 18 <170> SOFTWARE: PatentIn Ver. 2.0
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 762
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Homo sapiens
 25 <220> FEATURE:
 26 <221> NAME/KEY: misc_feature
 27 <222> LOCATION: (1)..(762)
 28 <223> OTHER INFORMATION: Restriction sites, Nco I and Hind III, are at 5'
 29 and 3' termini.
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 32 ccattggccca tttctggcag caagatgaac cccccagag cccctgggat cgagtgaagg 60
 33 acctggccac tgtgtacgtg gatgtgctca aagacacggg cagagactat gtgtccagat 120
 34 ttgaaggctc cgccttgga aaacagctaa acctaaagct ccttgacaac tgggacagcg 180
 35 tgacctccac cttcagcaag ctgcgcgaac agctcggccc tgtgaccag gagttctggg 240
 36 ataacctgga aaaggagaca gagggcctga ggcaagagat gagcaaggat ctggaggagg 300
 37 tgaaggccaa ggtgcagccc tacctggacg acttccagaa gaagtggcag gaggagatgg 360
 38 agctctaccg ccagaagggtg gagccgctgc gcgcagagct ccaagagggc gcgcgccaga 420
 39 agctgcacga gctgcaagag aagctgagcc cactgggcca ggagatgcgc gaccgcgcgc 480
 40 gcgcccattg ggacgcgctg cgcacgcatt tggcccccta cagcgacgag ctgcgccagc 540
 41 gcttggccgc gcgccttgag gctctcaagg agaacggcgg cgccagactg gccgagtacc 600
 42 acgccaaggc caccgagcat ctgagcacgc tcagcgagaa ggccaagccc gcgctcgagg 660
 43 acctccgcca aggcctgctg cccgtgctgg agagcttcaa ggtcagcttc ctgagcgctc 720
 44 tcgaggagta cactaagaag ctcaacaccc agtaataagc tt 762
 46 <210> SEQ ID NO: 2
 47 <211> LENGTH: 250
 48 <212> TYPE: PRT
 49 <213> ORGANISM: Homo sapiens
 51 <400> SEQUENCE: 2
 52 Met Ala His Phe Trp Gln Gln Asp Glu Pro Pro Gln Ser Pro Trp Asp
 53 1 5 10 15
 55 Arg Val Lys Asp Leu Ala Thr Val Tyr Val Asp Val Leu Lys Asp Ser
 56 20 25 30
 58 Gly Arg Asp Tyr Val Ser Gln Phe Glu Gly Ser Ala Leu Gly Lys Gln
 59 35 40 45
 61 Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Val Thr Ser Thr Phe
 62 50 55 60
 64 Ser Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp Asp

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65 65          70          75          80
67 Asn Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys Asp
68          85          90          95
70 Leu Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln
71          100          105          110
73 Lys Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu Pro
74          115          120          125
76 Leu Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu Leu
77          130          135          140
79 Gln Glu Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Arg Ala Arg
80 145          150          155          160
82 Ala His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp Glu
83          165          170          175
85 Leu Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn Gly
86          180          185          190
88 Gly Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu Ser
89          195          200          205
91 Thr Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly
92          210          215          220
94 Leu Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala Leu
95 225          230          235          240
97 Glu Glu Tyr Thr Lys Lys Leu Asn Thr Gln
98          245          250
101 <210> SEQ ID NO: 3
102 <211> LENGTH: 61
103 <212> TYPE: DNA
104 <213> ORGANISM: Artificial Sequence
106 <220> FEATURE:
107 <223> OTHER INFORMATION: Description of Artificial Sequence:
108     Oligonucleotide primer
110 <400> SEQUENCE: 3
111 tataccatgg gccatcatca tcatcatcat atagaaggaa gactaaagct ccttgacaac 60
112 t                                                                 61
114 <210> SEQ ID NO: 4
115 <211> LENGTH: 30
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Description of Artificial Sequence:
121     Oligonucleotide primer
123 <400> SEQUENCE: 4
124 gcaagcttat tactgggtgt tgagcttctt 30
126 <210> SEQ ID NO: 5
127 <211> LENGTH: 654
128 <212> TYPE: DNA
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide
133     sequence encoding Synthetic peptide.

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135 <400> SEQUENCE: 5

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136 tataccatgg gccatcatca tcatcatcat atagaaggaa gactaaagct ccttgacaac 60
137 tgggacagcg tgacctccac cttcagcaag ctgcgcgaac agctcggccc tgtgacccag 120
138 gagttctggg ataacctgga aaaggagaca gagggcctga ggcaggagat gagcaaggat 180
139 ctggaggagg tgaaggccaa ggtgcagccc tacctggacg acttccagaa gaagtggcag 240
140 gaggagatgg agctctaccg ccagaagggtg gagccgctgc gcgcagagct ccaagagggc 300
141 gcgcgccaga agctgcacga gctgcaagag aagttgagcc cactgggcga ggagatgcgc 360
142 gaccgcgcgc gcgccatgt ggacgcgctg cgcacgcacg tggcccccta cagcgacgag 420
143 ctgcgccagc gcttggccgc gcgccttgag gctctcaagg agaacggcgg cgccagactg 480
144 gccgagtacc acgccaaggc caccgagcat ctgagcacgc tcagcgagaa ggccaaaccc 540
145 gcgctcgagg acctccgcca aggcctgctg cccgtgctgg agagcttcaa ggtcagcttc 600
146 ctgagcgctc tcgaggagta cactaagaag ctcaacacccc agtaataagc ttgc 654

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148 <210> SEQ ID NO: 6

149 <211> LENGTH: 212

150 <212> TYPE: PRT

151 <213> ORGANISM: Artificial Sequence

153 <220> FEATURE:

154 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide

157 <400> SEQUENCE: 6

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158 Met Gly His His His His His His Ile Glu Gly Arg Leu Lys Leu Leu
159   1           5           10           15
161 Asp Asn Trp Asp Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln
162           20           25           30
164 Leu Gly Pro Val Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr
165   35           40           45
167 Glu Gly Leu Arg Gln Glu Met Ser Lys Asp Leu Glu Val Lys Ala
168   50           55           60
170 Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu
171  65           70           75           80
173 Met Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln
174           85           90           95
176 Glu Gly Ala Arg Gln Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro
177           100          105          110
179 Leu Gly Glu Glu Met Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu
180           115          120          125
182 Arg Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala
183           130          135          140
185 Ala Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu
186 145           150          155          160
188 Tyr His Ala Lys Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala
189           165          170          175
191 Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu
192           180          185          190
194 Ser Phe Lys Val Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys
195           195          200          205
197 Leu Asn Thr Gln
198           210
201 <210> SEQ ID NO: 7

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202 <211> LENGTH: 27
203 <212> TYPE: DNA
204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: Description of Artificial Sequence:
208     Oligonucleotide primer
210 <400> SEQUENCE: 7
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213 <210> SEQ ID NO: 8
214 <211> LENGTH: 619
215 <212> TYPE: DNA
216 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <223> OTHER INFORMATION: Description of Artificial Sequence:
220     Oligonucleotide primer
222 <400> SEQUENCE: 8
223 taccatggca aagctccttg acaactggga cagcgtgacc tccaccttca gcaagctgcg 60
224 cgaacagctc ggccctgtga cccaggagtt ctgggataac ctggaaaagg agacagaggg 120
225 cctgaggcag gagatgagca aggatctgga ggaggtgaag gccaaaggtgc agccctacct 180
226 ggacgacttc cagaagaagt ggcaggagga gatggagctc taccgccaga aggtggagcc 240
227 gctgcgcgca gagctccaag agggcgcgcg ccagaagctg cagcagctgc aagagaagtt 300
228 gagccactg  ggcgaggaga tgcgcgaccg cgcgcgcgcc catgtggaag cgctgcgcac 360
229 gcatctggcc ccctacagcg acgagctgcg ccagcgcttg gccgcgcgcc ttgaggctct 420
230 caaggagaac ggcgcgcgcca gactggccga gtaccacgcc aaggccaccg agcatctgag 480
231 cagctcagc  gagaaggcca aaccgcgcgt cgaggacctc cgccaaggcc tgcgtgccgt 540
232 gctggagagc ttcaaggtca gcttcctgag cgctctcgag gagtacacta agaagctcaa 600
233 caccagtaa  taagcttgc                               619
235 <210> SEQ ID NO: 9
236 <211> LENGTH: 201
237 <212> TYPE: PRT
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
242     peptide
244 <400> SEQUENCE: 9
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246   1                5                10                15
248 Lys Leu Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp Asp Asn
249   20                25                30
251 Leu Glu Lys Glu Thr Glu Gly Leu Arg Gln Glu Met Ser Lys Asp Leu
252   35                40                45
254 Glu Glu Val Lys Ala Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys
255   50                55                60
257 Lys Trp Gln Glu Glu Met Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu
258   65                70                75                80
260 Arg Ala Glu Leu Gln Glu Gly Ala Arg Gln Lys Leu His Glu Leu Gln
261   85                90                95
263 Glu Lys Leu Ser Pro Leu Gly Glu Glu Met Arg Asp Arg Ala Arg Ala
264   100               105               110

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```

266 His Val Asp Ala Leu Arg Thr His Leu Ala Pro Tyr Ser Asp Glu Leu
267      115      120      125
269 Arg Gln Arg Leu Ala Ala Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly
270      130      135      140
272 Ala Arg Leu Ala Glu Tyr His Ala Lys Ala Thr Glu His Leu Ser Thr
273 145      150      155      160
275 Leu Ser Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu
276      165      170      175
278 Leu Pro Val Leu Glu Ser Phe Lys Val Ser Phe Leu Ser Ala Leu Glu
279      180      185      190
281 Glu Tyr Thr Lys Lys Leu Asn Thr Gln
282      195      200
285 <210> SEQ ID NO: 10
286 <211> LENGTH: 27
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence:
292     Oligonucleotide primer
294 <400> SEQUENCE: 10
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297 <210> SEQ ID NO: 11
298 <211> LENGTH: 61
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: Description of Artificial Sequence:
304     Oligonucleotide primer
306 <400> SEQUENCE: 11
307 tataccatgg gccatcatca tcatcatcat atagaaggaa gactaaagct ccttgacaac 60
308 t
310 <210> SEQ ID NO: 12
311 <211> LENGTH: 52
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: Description of Artificial Sequence:
317     Oligonucleotide primer
319 <400> SEQUENCE: 12
320 taagaagctc aacacccagg gtaccggtgg aggtagtgga ggtggtaccc ta
322 <210> SEQ ID NO: 13
323 <211> LENGTH: 50
324 <212> TYPE: DNA
325 <213> ORGANISM: Artificial Sequence
327 <220> FEATURE:
328 <223> OTHER INFORMATION: Description of Artificial Sequence:
329     Oligonucleotide primer
331 <400> SEQUENCE: 13
332 cagggtaccg gtggaggttag tggaggtggt accctaaagc tccttgacaa

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Use of n and / or Xaa has been detected in the
Sequence Listing. Review the Sequence Listing
to ensure a corresponding explanation is present
in the <220> to <223> fields of each sequence
listing.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/990,087

DATE: 11/28/2001

TIME: 11:32:47

Input Set : A:\87-00.app

Output Set: N:\CRF3\11212001\I990087.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:1185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46